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THE LITTLE KNOWN SPECIES

LUPERINA VENOSA

A RE-DESCRIPTION OF THE SPECIES WITH ADDITIONAL DISTRIBUTIONAL DATA

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LUPERINA VENOSA (SMITH) WAS DESCRIBED in 1903 and originally attributed to the genus of *Cosmia* Ochsenhimer. At the time of the original description, Smith had a total of six specimens before him, collected in Oregon, Washington, and British Columbia. Before this present paper, there were apparently no published records of *venosa* from California. Recently the species has been taken in fair abundance near Petaluma, Sonoma County, California, and in the northern portion of the state in the coast ranges.

The only treatment *venosa* has had besides the original description is that by Hampson (1908). Barnes & McDunnough (1917), and McDunnough (1938) list *venosa* in their lists. Oddly enough, Blackmore (1927) failed to include this species in his "checklist" even though British Columbia is a locality included with the original description. Apparently, there is no photograph of the adults in the literature, nor have the male or female genitalia been illustrated. Presented here are both a photograph of the adults and illustrations of the genitalia in both sexes. (Figs. 2-7). Hampson's colored illustrations of *venosa* is very good, the only criticism being that it is slightly too bright.

As can be seen by the distribution map (figure 1), *venosa* occurs along the coast ranges of California, northward into British Columbia. Nothing is yet known concerning the immature stages of this insect, but it probably feeds on one or more grass species, or perhaps on *Rumex* spp. Crumb (1956) mentions the foodplants of

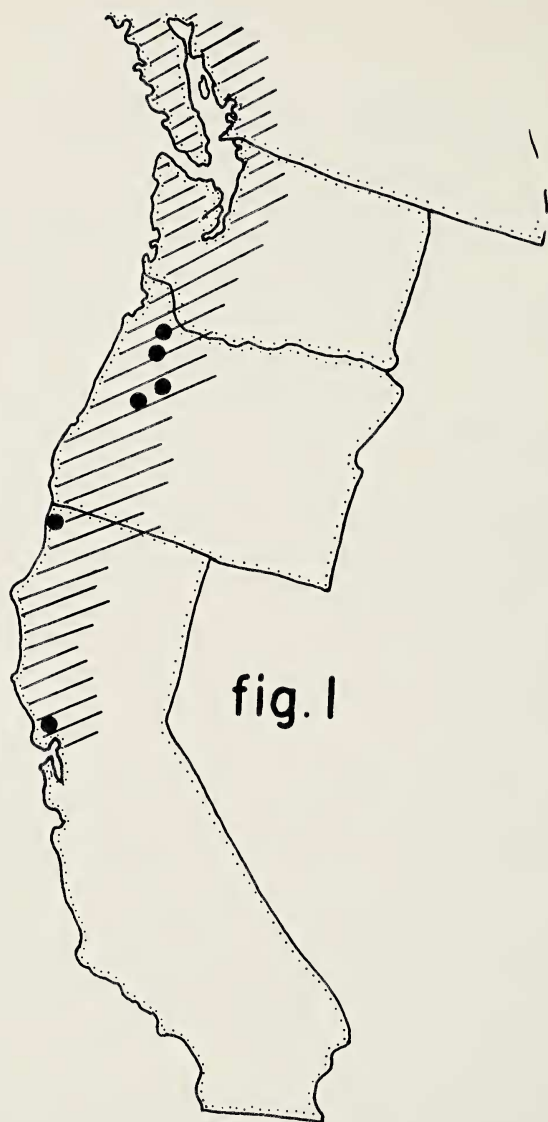


Fig. 1. — Distribution map showing the range of *Luperina venosa* (Sm.).

some of the other species in the genus, and they feed on the plants suggested by the authors for *venosa*. Of the members of the genus in which immature stages are known, there is no indication that would lead one to believe *venosa* to be host specific.

L. venosa flies in June in the southern most portion of its range, and emerges progressively later in the season as one goes northward. It is on the wing for a period of four to five weeks.

Luperina venosa (Smith)

Cosmia venosa Smith, 1903; Jour. N. Y. Ent. Soc. 11(1):21. Hampson, G. F., 1908; Cat. Noctuidae Brit. Mus. 7:467, 475, plate 119, figure 21. Barnes, Wm., and J. McDunnough, 1917; Checklist of the Lepidoptera of Boreal America, pg. 63. Draudt, M. (in Seitz), 1926; The Macrolepidoptera of the World 7:236, figure 34g. McDunnough, J., 1938; Check list of the Macrolepidoptera of Canada and the United States of America. Mem. So. Cal. Acad. Sci. 1:88.

Male: Ground color red-brown, thorax darker than primaries; secondaries and abdomen smokey brown, lighter than thorax. Head with evenly rounded frontal protuberance; antennae with scape exterolaterally produced, flagellum scaled dorsally, ventrally with a single group of setae per each flagellar segment; single pair of ocelli conical, broader at base than terminally; palps clothed in admixture of brown elongate scales and hairs; basal segment of palpi also possessing rose colored scales exterolaterally. Thorax unicolorous, dark red-brown; primaries red-brown; basal line hardly discernable, when present represented on costa in dark brown; transverse anterior line dark brown, with two large undulations in cubital and anal regions; median area darker than both transverse anterior area and subterminal area; claviform dark brown, elongate, traversing one-third the distance across median area; orbicular ochreous, obscured, or prominent, round, or oblong; transverse posterior line dark brown, from directly above reniform on costa thence outwardly curved around reniform, thence straight to inner margin, roughly parallel with outer margin; reniform prominent, ochreous; subterminal line brown, faint; terminal line dark brown; fringes fuscous; ventral surface of primaries dark brown, becoming lighter terminally; suggestion of exterior line; secondaries dorsally dark brown, fringes lighter; ventral surface lighter brown than ventral surface of primaries; discal dot dark, prominent; suggestion of exterior line; venter of thorax dark brown, tarsal segments indistinctly yellow ringed terminally; unguis bifurcate, as in figure 7. Abdomen brown, becoming lighter terminally. Greatest expanse of forewing 18mm-19mm.

Female: More brightly colored than in male; antennae lacking setal groups as in male, scaled dorsally, microciliations ventrally as

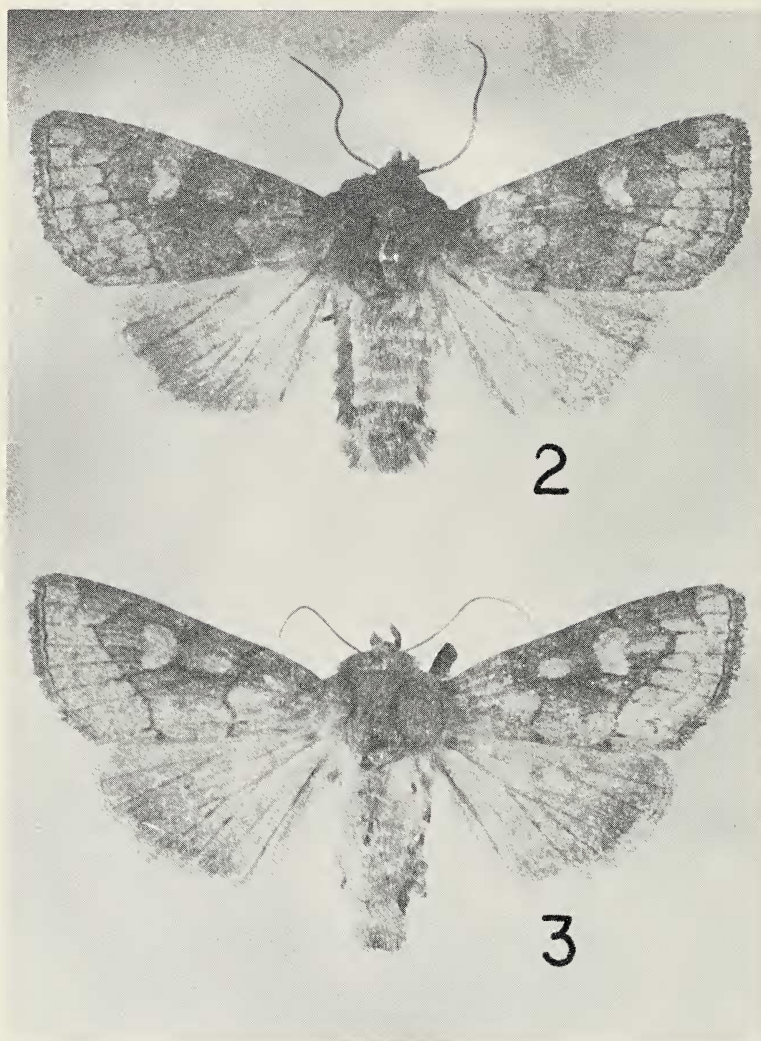
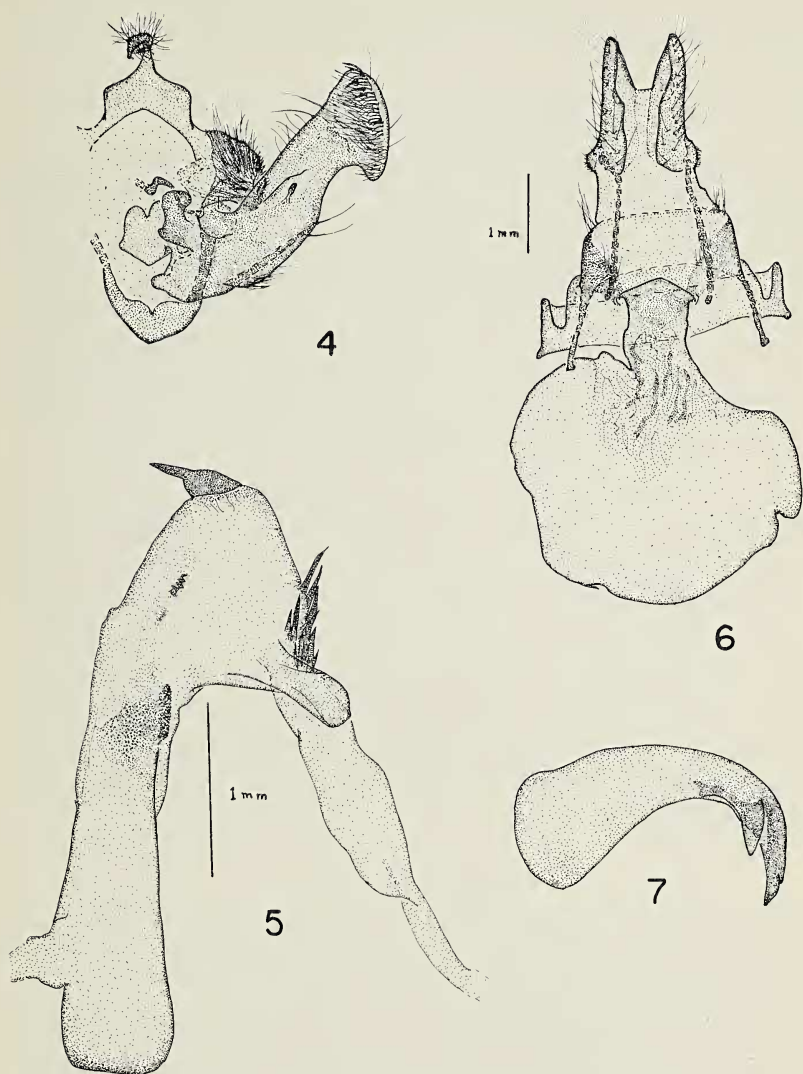


Fig. 2. — *Luperina venosa*. Male. 2 miles northwest of Petaluma, Sonoma County, California, 1 July 1963 (L. P. Lounibos).

Fig. 3. — *Luperina venosa*. Female. Same locality and collector as in figure 2, 26 June 1963.



Luperina venosa

Fig. 4. — Male genitalia, minus aedeagus. Same locality and collector as in figure 2, 8 June 1963 (Bauer-Buckett slide No. 65D20-21). Fig. 5 — Aedeagus. Data same as in figure 4. 1 mm indicator near aedeagus applies only to figure 5. Fig. 6 — Female genitalia. Same locality and collector as in figure 2, 18 June 1963 (B.-B. slide No. 65D20-22). Fig. 7 — Left posterior tibial claw, mesal view, showing bifurcation, 40 X. Data same as in figure 4.

well as one or two prominent setae per flagellar segment; tarsi conspicuously yellow banded. Greatest expanse of forewing 17mm-20mm.

SPECIMENS EXAMINED

24 males, 11 females, 2 miles northwest Petaluma, Sonoma County, California, 8 June - 1 July, 1963 (L. P. Lounibos); 2 males, same locality and collector as preceeding, 8 June and 18 June 1963 (Bauer-Buckett Slide No. 65D20-21, and B.-B. slide No. 65D20-23, respectively); 1 female, same locality and collector as preceeding, 18 June 1963 (B.-B. slide No. 65D20-22); 2 males, 1 female, same locality and collector as preceeding, 11 June 1962; 6 males, 5 females, Fort Dick, Del Norte County, California, 25 June - 26 July 1962 (J. W. Anderson); 1 female, Aumsville, Marion County, Oregon, 23 June 1964 (K. Goeden); 1 male, 1 female, 5 miles northwest Corvallis, Benton County, Oregon, 1 July 1962 (A. N. McFarland); 1 female, McMinnville, Yamhill County, Oregon, 6 July 1953 (K. Fender); 1 male, 1 female, same locality and collector as preceeding, 1 September 1953; 6 males, 3 females, Forest Grove, Washington County, Oregon, 10 June 1964 (K. Goeden).

The specimens used in this work are located in the following collections: Bauer-Buckett Collection, Davis, California; Entomology Collection, University of California, Davis; L. Philip Lounibos Collection, Petaluma, California. The methods used in preparing the genitalic mounts and the illustrations are the same as those employed by Buckett (1964), the only modification being the inflation of the aedeagus herein employed. All the specimens, with the exception of the McMinnville specimens, were collected by the use of 15 watt fluorescent black light trap, using Calcium Cyanide as the killing agent.

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